## NEW YORK STATE COLLEGE OF AGRICULTURE A UNIT OF THE STATE UNIVERSITY OF NEW YORK CORNELL UNIVERSITY ITHACA, NEW YORK

DEPARTMENT OF PLANT PATHOLOGY PLANT SCIENCE BUILDING

August 28, 1962

Professor Joshua Lederberg Dept. Genetics University of Wisconsin Madison 6, Wisconsin

Dear Professor Lederberg:

I am soliciting your advice and suggestions concerning a new course I am instituting this year as it relates to your own areas of research. I will be deeply appreciative of your help.

The course is entitled "Mechanisms of Variation in Fungi", and consists of fifteen 50-minute lectures. As prerequisites, the students will be expected to have taken a general genetics course and an introductory mycology course (those who follow the Cornell sequence will have had a short course of 30 50-minute lectures and 30 2-1/2 hour laboratory periods in mycology). For some students it will be a terminal course in mycology, while others will follow it or take it concurrently with an advanced mycology course of 60 lectures and 60 laboratory periods.

The objective of the course is to bring together material which has previously been scattered in my courses and to organize it in such a manner that the students are made aware of the peculiar properties embodied in the unicellular and in the filamentous fungus systems, and of the various genetic and non-genetic factors which may play a role in the amount of observed variation in nature.

The following is a tentative schedule of the lecture titles (or of the areas I expect to cover):

- 1. Review of filamentous and non-filamentous systems, of life cycles, nuclear cycles, and nuclear migration.
- 2. Mutation and Recombination, and the proof of chromosomal control of heritable characters in fungi.
- 3. Mutagens and Biochemical Genetics.
- 4. Heterokaryosis.
- 5. Parasexuality.
- 6. Selection.
- 7. Incompatability Systems.
- 8. "
- 9. "

- 10. Cytoplasmic Inheritance.
- 11. Sexual Hormones and other phenomena of Differentiation.
- 12. Adaptation; Bridging Hosts.
- 13. Inheritance of Pathogenicity and Host-Parasite Interactions.
- 14. 11 11 11 11 11
- 15. Variation and Taxonomy.

For each of these lectures I expect to provide a sheet of references for the student. These will be in two sections: Required Reading, consisting of one or more articles or chapters (probably the better review articles where available) which should take the student about two hours to read, and Additional References, consisting of as many good references to original research and/or other review articles, which can be of use to the student who wishes to pursue the area covered in more depth.

It is in regard to these references that I am particularly desirous of your help, since you will have a far firmer grasp of the literature in your own area than I can hope to have.

Would you please give me your suggestions for both Required Reading and for Additional References for Lectures 3, 4, and 5? Good references on any of the other topics would also be appreciated.

I have one additional request, since no doubt some of the references will be your own, and that is that you send me two copies (if still available) of the references you cite from your own laboratories. If you cannot spare two, one will do. And to save work, of course you need not list the references you send except to indicate on them which ones you feel should be required reading.

Of course I realize I am asking a great deal, and can only hope that you will realize that I am writing you directly in order to give my students a better break than they would get from my own knowledge of the literature. Good references will correct and counteract any of the misinformation I may present in the lectures!

Since my course will begin in September, I hope that I may receive an early reply. If at some time I can be of similar use to you in regard to my research area, please feel free to call upon me.

Richard P. Korf

Professor of Mycology